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(54) Title: COMPOSITIONS AND METHODS OF USE OF TARGETING PEPTIDES FOR DIAGNOSIS AND THERAPY OF HUMAN CANCER

(57) Abstract: The present invention concerns compositions comprising and methods of identification and use of targeting peptides selective for cancer tissue, particularly prostate or ovarian cancer tissue. The method may comprise identifying endogenous mimeotopes of such peptides, such as GRP78, IL-11R α and hsp90. Antibodies against such targeting peptides or their mimeotopes may be used for detection, diagnosis and/or staging of prostate or ovarian cancer. In other embodiments, the compositions and methods concern novel type of gene therapy vector, known as adeno-associated phage (AAP). AAP are of use for targeted delivery of therapeutic agents to particular tissues, organs or cell types, such as prostate or ovarian cancer. In still other embodiments, targeting peptides selective for low-grade lipomas may be used for detection, diagnosis and targeted delivery of therapeutic agents.

WO 2004/020999 A1